

## SDG COVER PAGE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011  
 Lab Code: ACE Case No.: 51821 MA No.: \_\_\_\_\_ SDG No.: MJNKA0  
 SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	ICP-AES	Analysis Method		
			ICP-MS	Mercury	Cyanide
MJNKA0	P5363-01		X		
MJNKA2	P5363-02		X		
MJNKA3	P5363-03		X		
MJNKA4	P5363-04		X		
MJNKA5	P5363-05		X		
MJNKA6	P5363-06		X		
MJNKA6D	P5363-07		X		
MJNKA6S	P5363-08		X		
MJNKB6	P5363-09		X		
MJNKC4	P5363-10		X		
MJNKG9	P5363-11		X		
MJNKH0	P5363-12		X		
MJNKJ0	P5363-13		X		
MJNLE3	P5363-14		X		
MJNLF9	P5363-15		X		
MJNLG0	P5363-16		X		

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. All edits and manual integrations have been peer-reviewed. Release of the data contained in this hardcopy Complete SDG File and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_  
 Date: \_\_\_\_\_ Title: \_\_\_\_\_

## USEPA CLP COC (LAB COPY)

Date Shipped: 12/19/2024

Carrier Name: FedEx

Airbill No: 7709 1759 8009

## CHAIN OF CUSTODY RECORD

Case #: 51821

Cooler #: 18

68HERH20D0011

SDG # MJNKA0

No: 10-121924-142955-0022

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MJNKA0	MJNKA0	Sediment/ SB	Grab	ICP-MS(21)	1292 (< 6 C) (1)	OU6-SS-TR1A-0.0-0.33	12/17/2024 13:05	
MJNKA2	MJNKA2	Sediment/ SB	Grab	ICP-MS(21)	1294 (< 6 C) (1)	OU6-SS-TR2A-0.0-0.33	12/17/2024 12:00	
MJNKA3	MJNKA3	Sediment/ SB	Grab	ICP-MS(21)	1295 (< 6 C) (1)	OU6-SS-TR2B-0.0-0.33	12/16/2024 10:05	
MJNKA4	MJNKA4	Sediment/ SB	Grab	ICP-MS(21)	1296 (< 6 C) (1)	OU6-SS-TR3A-0.0-0.33	12/17/2024 11:10	
MJNKA5	MJNKA5	Sediment/ SB	Grab	ICP-MS(21)	1297 (< 6 C) (1)	OU6-SS-TR3B-0.0-0.33	12/13/2024 11:30	
MJNKA6	MJNKA6	Sediment/ SB	Grab	ICP-MS(21)	1298 (< 6 C) (1)	OU6-SS-TR3C-0.0-0.33	12/13/2024 10:50	
MJNKB6	MJNKB6	Sediment/ SB	Grab	ICP-MS(21)	1308 (< 6 C) (1)	OU6-SS-TR7B-0.0-0.33	12/16/2024 10:40	
MJNKC4	MJNKC4	Sediment/ SB	Grab	ICP-MS(21)	1316 (< 6 C) (1)	OU6-SS-TR12-0.0-0.33	12/12/2024 14:05	
MJNKG9	MJNKG9	Sediment/ SB	Grab	ICP-MS(21)	1361 (< 6 C) (1)	OU6-SS-YB15-0.0-0.33	12/16/2024 09:25	
MJNKH0	MJNKH0	Sediment/ SB	Grab	ICP-MS(21)	1362 (< 6 C) (1)	OU6-SS-YB01-0.0-0.33	12/13/2024 09:35	

Sample(s) to be used for Lab QC: MJNKA6 Tag 1298

0543460, 0543459

Analysis Key: ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	CB Jedy	12/19/2024	2/15	0949	Temp 28°C
				12.20.2024	IR Gun #1
					CUSTODY seal intact
					Temp BLC percent

No: 10-121924-142955-0022

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed  
Lab Phone: 908-728-3151

Lab Phone: 908-728-3151

[illegible]

0543460, 0543459

at least for Case Complete? N

**Samples Transferred From Chain of Custody #**

Analysis Key: ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment

Analysis Key: ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment					
Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	JD Jacob	12/19/24 1600	J. J. Jm	0949 12.20.2024	Temp B.B.C. IF can #1
					CUSTO by seal
					Temp BL per view

FORM DC-1  
SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page <u>1</u> of <u>1</u>
Received By (Print Name) <u>Cassanova Peña</u>		Log-in Date <b>12/20/2024</b>
Received By (Signature) <u>[Signature]</u>		
Case Number <b>51821</b>	SDG No. <b>MJNKA0</b>	MA No. <b>N/A</b>

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	<u>0543460,0543459</u>
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	Present
5. Airbill No. and Shipping Container ID No.	<u>770917598009</u> <u>1</u>
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	<u>2.8</u> Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	<u>12/20/2024</u>
12. Time Received	<u>09:49</u>

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding		Remarks: Condition of Sample Shipment, etc.
			Sample Tag #	Assigned Lab #	
1	MJNKA0	N/A	<del>1992</del> 1292	P5363-01	Intact
2	MJNKA2	N/A	1994 1294	P5363-02	Intact
3	MJNKA3	N/A	1995 1215	P5363-03	Intact
4	MJNKA4	N/A	<del>1996</del> 1296	P5363-04	Intact
5	MJNKA5	N/A	<del>1997</del> 1297	P5363-05	Intact
6	MJNKA6	N/A	<del>1998</del> 1298	P5363-06	Intact
7	MJNKA6D	N/A	1998 1298	P5363-07	Intact
8	MJNKA6S	N/A	<del>1998</del> 1298	P5363-08	Intact
9	MJNKB6	N/A	1308	P5363-09	Intact
10	MJNKC4	N/A	1316	P5363-10	Intact
11	MJNKG9	N/A	1361	P5363-11	Intact
12	MJNKH0	N/A	1362	P5363-12	Intact
13	MJNKG0	N/A	1372	P5363-13	Intact
14	MJNLE3	1.0	1665	P5363-14	Intact
15	MJNLF9	1.0	1677	P5363-15	Intact
16	MJNLG0	1.0	1678	P5363-16	Intact
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

\* Contact SMO and attach record of resolution

Reviewed By <u>[Signature]</u>	Logbook No. <b>N/A</b>
Date <u>12/20/24</u>	Logbook Page No. <b>N/A</b>

FORM DC-2  
COMPLETE SDG FILE (CSF) INVENTORY SHEET

LAB NAME	Alliance Technical Group, LLC		
LAB CODE	ACE		
CONTRACT NO.	68HERH20D0011		
CASE NO.	51821	SDG NO.	MJNKA0
MA NO.		SOW NO.	SFAM01.1

All documents delivered in the Complete SDG File must be original documents where possible.  
(Reference - Exhibit B Section 2.4)

	PAGE NOS:		CHECK	
	FROM	TO	LAB	REGION
1. SDG Cover Page	1	1	✓	
2. Traffic Report/Chain of Custody Record(s)	2	3	✓	
3. Sample Log-In Sheet (DC-1)	4	4	✓	
4. CSF Inventory Sheet (DC-2)	5	7	✓	
5. SDG Narrative	8	11	✓	
6. Communication Logs	NA	NA	✓	
7. Percent Solids Log	12	13	✓	

**Analysis Forms and Data (ICP-AES)**

8. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
9. Instrument raw data by instrument in analysis order	NA	NA	✓	

**Other Data**

10. Standard and Reagent Preparation Logs	NA	NA	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
13. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
14. Extraction Logs for TCLP and SPLP	NA	NA	✓	
15. Raw GPC Data	NA	NA	✓	
16. Raw Florisil Data	NA	NA	✓	

**Analysis Forms and Data (ICP-MS)**

17. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	14	27	✓	
18. Instrument raw data by instrument in analysis order	28	1116	✓	

**Other Data**

19. Standard and Reagent Preparation Logs	1117	1261	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	1262	1265	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	1266	1275	✓	
22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	PAGE NOS:		CHECK	
	FROM	TO	LAB	REGION
23 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
24 . Raw GPC Data	NA	NA	✓	
25 . Raw Florisil Data	NA	NA	✓	

#### Analysis Forms and Data (Mercury)

26 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
27 . Instrument raw data by instrument in analysis order	NA	NA	✓	

#### Other Data

28 . Standard and Reagent Preparation Logs	NA	NA	✓	
29 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
30 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
31 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
32 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
33 . Raw GPC Data	NA	NA	✓	
34 . Raw Florisil Data	NA	NA	✓	

#### Analysis Forms and Data (Cyanide)

35 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	NA	NA	✓	
36 . Instrument raw data by instrument in analysis order	NA	NA	✓	

#### Other Data

37 . Standard and Reagent Preparation Logs	NA	NA	✓	
38 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
39 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
40 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
41 . Extraction Logs for TCLP and SPLP	NA	NA	✓	
42 . Raw GPC Data	NA	NA	✓	
43 . Raw Florisil Data	NA	NA	✓	

**Additional**

## 44. EPA Shipping/Receiving Documents

Airbill (No. of Shipments 1)

Sample Tags

Sample Log-In Sheet (Lab)

## 45. Misc. Shipping/Receiving Records (list all individual records)

46. Internal Lab Sample Transfer Records and Tracking Sheets  
(describe or list)47. Other Records and related Communication Logs  
(describe or list)

## 48. Comments:

Completed by:  
(CLP Lab)Audited by:  
(EPA)

Nimisha Pandya, Document Control Officer

(Signature)

(Print Name &amp; Title)

(Date)

(Signature)

(Print Name &amp; Title)

(Date)

PAGE NOs:		CHECK	
FROM	TO	LAB	REGION
1276	1276	✓	
NA	NA	✓	
1277	1278	✓	
NA	NA	✓	
1279	1280	✓	
NA	NA	✓	



**284 Sheffield Street  
Mountainside, NJ 07092**

## **SDG NARRATIVE**

**USEPA**

**SDG # MJNKA0**

**CASE # 51821**

**CONTRACT # 68HERH20D0011**

**SOW# SFAM01.1**

**LAB NAME: Alliance Technical Group, LLC**

**LAB CODE: ACE**

**LAB ORDER ID # P5363**

### **A. Number of Samples and Date of Receipt**

11 Soil 03 Water samples was delivered to the laboratory intact on 12/20/2024

### **B. Parameters**

Test requested for Metals CLP4 MS = Arsenic, Copper, Lead, Zinc.

Test requested for Metals CLP MS-CLP4 = Arsenic, Copper, Lead, Zinc.

### **C. Cooler Temp**

Indicator Bottle: Presence/Absence

Cooler: 2.8°C

### **D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):**

Issue 1 : A "P" or "M" prefix was listed at the beginning of a CLP sample ID.

### **E. Corrective Action taken for above:**

Resolution 1 : To maintain COC integrity, ASB requests no changes to the Sample IDs. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

### **F. Analytical Techniques:**

All analyses were based on CLP Methodology by method SFAM01.1.



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**G. Calculation:**

**Calculation for ICP-MS Soil Sample:**

Conversion of Results from  $\mu\text{g/L}$  or ppb to  $\text{mg/kg}$  :

$$\text{Concentration (mg/kg)} = C \times \frac{V_f}{W \times S} \times \text{DF} / 1000$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

**Example Calculation For Sample MJNKA0 For Arsenic:**

If C = 500.96 ppb

Vf = 500 ml

W = 1.25 g

S = 0.798(79.8/100)

DF = 1

$$\text{Concentration (mg/kg)} = 500.96 \times \frac{500}{1.25 \times 0.798} \times 1 / 1000$$

$$= 251.1077 \text{ mg/kg}$$

$$= 250 \text{ mg/kg (Reported Result with Signification)}$$

**Calculation for ICP-MS Water Sample:**

$$\text{Concentration or Result } (\mu\text{g/L}) = C \times \frac{V_f}{V_i} \times \text{DF}$$

V<sub>i</sub>

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

Vi = Initial aliquot amount (mL) (Sample amount taken in prep)

DF = Dilution Factor



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**Example Calculation For Sample MJNLE3 For Arsenic:**

If C = 0.18 ppb

Vf = 50 ml

Vi = 50 ml

DF = 1

$$\text{Concentration or Result } (\mu\text{g/L}) = 0.18 \times \frac{50}{50} \times 1$$

$$= 0.18 \mu\text{g/L}$$

$$= 0.18 \mu\text{g/L (Reported Result with Signification)}$$

**H. QA/ QC**

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements except for Arsenic, Lead. Serial Dilution did meet requirements.

Internal standard 209Bi(1) was out Side qc limit for sample MJNKA5 in Original so for this sample affected parameters are reported from 2X dilution.

Some samples have % solids results less than 50% but more than 30%. Please see below table for detail. Laboratory has processed these samples according to the SFAM01.1 SOW, Exhibit D, sections 10.1.1.8.

<b>EPA Sample ID</b>	<b>% Solid</b>
MJNKJ0	49.1

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

Internal Standard Association for ICP-MS analysis.

<b>Target Analyte</b>	<b>Associated Internal Standard</b>
Arsenic	89Y
Copper	45Sc
Lead	209Bi



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Zinc	45Sc
------	------

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature\_\_\_\_\_

Name: Nimisha Pandya

Date \_\_\_\_\_

Title: Document Control Officer



PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/23/2024

OVENTEMP IN Celsius(°C): 106  
Time IN: 12:50  
In Date: 12/20/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 07:45  
Out Date: 12/21/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB134043

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
P5363-01	MJNKA0	1	1.14	8.79	9.93	8.15	79.7	
P5363-02	MJNKA2	2	1.15	8.83	9.98	7.62	73.3	
P5363-03	MJNKA3	3	1.15	8.74	9.89	7.07	67.7	
P5363-04	MJNKA4	4	1.15	8.82	9.97	7.72	74.5	
P5363-05	MJNKA5	5	1.13	8.80	9.93	9.37	93.6	
P5363-06	MJNKA6	6	1.19	8.41	9.6	6.82	66.9	
P5363-07	MJNKA6D	7	1.19	8.41	9.6	6.82	66.9	
P5363-08	MJNKA6S	8	1.19	8.41	9.6	6.82	66.9	
P5363-09	MJNKB6	9	1.15	8.82	9.97	8.24	80.4	
P5363-10	MJNKC4	10	1.19	8.43	9.62	6.99	68.8	
P5363-11	MJNKG9	11	1.13	8.70	9.83	7.54	73.7	
P5363-12	MJNKH0	12	1.15	8.82	9.97	6.8	64.1	
P5363-13	MJNKKJ0	13	1.17	8.81	9.98	5.5	49.1	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

# WORKLIST(Hardcopy Internal Chain)

JB 134043

WorkList Name : %1-P5363      WorkList ID : 186539      Department : Wet-Chemistry      Date : 12-20-2024 12:08:16

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5363-01	MJNKA0	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/17/2024	Chemtech -SO
P5363-02	MJNKA2	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/17/2024	Chemtech -SO
P5363-03	MJNKA3	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/16/2024	Chemtech -SO
P5363-04	MJNKA4	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/17/2024	Chemtech -SO
P5363-05	MJNKA5	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO
P5363-06	MJNKA6	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO
P5363-07	MJNKA6D	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO
P5363-08	MJNKA6S	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO
P5363-09	MJNKB6	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/16/2024	Chemtech -SO
P5363-10	MJNKC4	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/12/2024	Chemtech -SO
P5363-11	MJNKG9	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/16/2024	Chemtech -SO
P5363-12	MJNKH0	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO
P5363-13	MJNKJ0	Solid	Percent Solids	Cool 4 deg C	USEP01	C21	12/13/2024	Chemtech -SO

Date/Time 12/20/24 12:15  
Raw Sample Received by: *af wcc*  
Raw Sample Relinquished by: *af wcc*

Date/Time 12/20/24 13:00  
Raw Sample Received by: *af wcc*  
Raw Sample Relinquished by: *af wcc*